

---

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

---

In re application of: Randy E. Keen

Attorney Docket No.: KEENP001X1C1

Application No.: NEW

Examiner: UNASSIGNED

Filed: HEREWITH

Group: UNASSIGNED

Title: MOLECULAR WIRE INJECTION  
SENSORS

---

**INFORMATION DISCLOSURE STATEMENT  
37 CFR §§1.56 AND 1.97(b)**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

The references listed in the attached PTO Form 1449 may be material to examination of the above-identified patent application. Applicants submit the list of these references in compliance with their duty of disclosure pursuant to 37 CFR §§1.56 and 1.97. The Examiner is requested to make these references of official record in this application. The above-identified application is a Continuation of prior application U.S. Patent Application No. 09/960,165. This prior application is being relied upon for an earlier filing date under 35 U.S.C. § 120. Because the listed references were either cited by the PTO, or submitted to the PTO in the prior application, under 37 CFR § 1.98(d) Applicants submit that copies need not be provided.

This Information Disclosure Statement is not to be construed as a representation that a search has been made, that additional information material to the examination of this application does not exist, or that these references indeed constitute prior art.

This Information Disclosure Statement is: (i) filed within three (3) months of the filing date of the above-referenced application, (ii) believed to be filed before the mailing date of a first Office Action on the merits, or (iii) believed to be filed before the mailing of a first Office Action after the filing of a Request for Continued Examination under §1.114. Accordingly, it is believed that no fees are due in connection with the filing of this Information Disclosure Statement. However, if it is determined that any fees are due, the Commissioner is hereby authorized to charge such fees to Deposit Account 500388 (Order No. KEENP001X1C1).

Respectfully submitted,  
BEYER WEAVER & THOMAS, LLP

  
Jeffrey K. Weaver  
Registration No. 31,314

**Form 1449 (Modified)****Information Disclosure  
Statement By Applicant**

(Use Several Sheets if Necessary)

Atty Docket No.  
KEENP001X1C1Serial No.:  
NEWApplicant:  
Randy E. Keen  
Filing Date  
HEREWITHGroup  
UNASSIGNED**U.S. Patent Documents**

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
	A	5,431,883	07/11/95	Barraud	422	82.01	01/27/94
	B	4,777,019	10/11/88	Dandekar	422	68	04/11/86
	C	5,403,700	04/04/95	Heller, et al.	430	311	01/22/92
	D	5,401,376	03/28/95	Foos, et al.	204	415	03/11/94
	E	5,385,651	01/31/95	Stickney, et al.	204	109.25	05/28/93
	F	5,356,757	10/18/94	Shionoya, et al.	430	315	11/06/92
	G	5,320,736	06/14/94	Stickney, et al.	205	157	05/06/91
	H	5,309,085	05/03/94	Sohn	324	71.5	11/24/92
	I	5,262,035	11/16/93	Gregg, et al.	204	403	08/02/89
	J	5,250,168	10/05/93	Tsukada, et al.	204	416	07/01/91
	K	5,243,516	09/07/93	White	364	413.07	12/15/89

**Foreign Patent or Published Foreign Patent Application**

Examiner Initial	No.	Document No.	Publication Date	Country or Patent Office	Class	Sub-class	Translation	
							Yes	No
	L	0228259B1	02/17/93	EPO	C12N	11/08	X	
	M	0395137B1	08/16/95	EPO	G01N	33/543	X	
	N	0230472B1	06/19/86	EPO	G01N	27/416	X	
	O	WO 93/08464	04/29/93	PCT	G01N	27/26	X	
	P	WO 94/28203	12/08/94	PCT	C25F	3/12	X	

**Other Documents**

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
	R	Heller, A: "Electrical Wiring of Redox Enzymes." <u>Acc. Chem. Res.</u> 23(5):128-134, 1990.
	S	Khan, GF; Shinohara, H; Ikariyama, Y; Aizawa, M: "Electrochemical Behaviour of Monolayer Quinoprotein Adsorbed on the Electrode Surface," <u>J. Electroanal Chem.</u> 315:263-273, 1991
	T	Shinohara, H; Khan, GF; Ikariyama, Y; Aizawa, M: "Electrochemical Oxidation and Reduction of PQQ Using a Conducting Polypyrrole-Coated Electrode," <u>J. Electroanal. Chem.</u> 304:75-84, 1991.
Examiner		Date Considered

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>Form 1449 (Modified)</b>				Atty Docket No. KEENP001X1C1	Serial No.: NEW	
<b>Information Disclosure Statement By Applicant</b>				Applicant: Randy E. Keen		
(Use Several Sheets if Necessary)				Filing Date HEREWITH	Group	UNASSIGNED

### U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
	2A	5,215,631	06/01/93	Westfall	204	64	10/11/91
	2B	5,212,050	05/18/93	Mier, et al.	430	320	08/15/90
	2C	5,200,051	04/06/93	Cozzette, et al.	204	403	11/07/89
	2D	5,166,063	11/24/92	Johnson	435	173	06/29/90
	2E	5,140,393	08/18/92	Hijikihigawa, et al.	357	25	09/05/90
	2F	5,126,921	06/30/92	Fujishima, et al.	361	525	06/30/92
	2G	5,112,455	05/12/92	Cozzette, et al.	204	153.12	07/20/90
	2H	5,108,819	04/28/92	Heller, et al.	428	195	02/14/90
	2I	5,063,081	11/05/91	Cozzette, et al.	427	2	08/15/90
	2J	5,034,192	07/23/91	Wrighton, et al.	422	82.02	06/21/89
	2K	5,000,180	03/19/91	Kuypers, et al.	128	635	07/31/89

### Foreign Patent or Published Foreign Patent Application

Examiner Initial	No.	Document No.	Publication Date	Country or Patent Office	Class	Sub-class	Translation	
							Yes	No
	2L							
	2M							
	2N							
	2O							
	2P							

### Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
	2R	Schuhmann, W; Ohara, TJ; Schmidt, H-L; Heller, A: "Electron Transfer between Glucose Oxidase and Electrodes via Redox Mediators Bound with Flexible Chains to the Enzyme Surface," <u>J. Am. Chem. Soc.</u> 113(4):1394-1397, 1991.
	2S	Gregg, BA; Heller, A: "Cross-Linked Redox Gels Containing Glucose Oxidase for Amperometric Biosensor Applications," <u>Anal Chem.</u> 62(3):258-263, 1990.
	2T	Heller, A: "Electrical Connection of Enzyme Redox Centers to Electrodes," <u>J. Phys. Chem.</u> 96(9):3579-3587, 1992.
Examiner		Date Considered

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>Form 1449 (Modified)</b>				Atty Docket No. KEENP001X1C1	Serial No.: NEW	
<b>Information Disclosure Statement By Applicant</b>				Applicant: Randy E. Keen		
(Use Several Sheets if Necessary)				Filing Date HEREWITH	Group	UNASSIGNED

#### U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
	3A	4,963,815	10/16/90	Hafeman	324	715	02/10/87
	3B	4,942,127	07/17/90	Wada, et al.	435	11	05/06/88
	3C	4,936,956	06/26/90	Wrighton	204	153.21	10/29/87
	3D	4,929,313	05/29/90	Wrighton	204	153.1	01/04/88
	3E	4,909,921	03/20/90	Ito	204	403	02/09/89
	3F	4,895,705	01/23/90	Wrighton	422	68	05/13/87
	3G	4,894,339	12/17/86	Hanazato, et al.	435	182	12/17/86
	3H	4,889,612	12/26/89	Geist, et al.	204	416	05/22/87
	3I	4,874,500	10/17/89	Madou, et al.	204	412	07/15/87
	3J	4,839,000	06/13/89	Eddowes	204	1	11/21/86
	3K	4,764,797	08/16/88	Shaw, et al.	357	25	07/08/86

#### Foreign Patent or Published Foreign Patent Application

Examiner Initial	No.	Document No.	Publication Date	Country or Patent Office	Class	Sub-class	Translation	
							Yes	No
	3L							
	3M							
	3N							
	3O							
	3P							

#### Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
	3R	Schuhmann, W: "Diagnostic Biosensor Polymers," ACS Symposium Series 556. Usmani, AM; Akmal, N; eds. <u>American Chemical Society</u> ; Washington, D.C.; 1994; pp. 110-123.
	3S	Heller, A: "Electrical Wiring of Redox Enzymes," <u>Acc. Chem. Res.</u> 23(5):128-134, 1990.
	3T	Wrotnowski, Cort, "Biosensors are Making Steady Yet Limited Progress into the Marketplace," 11-15-96, <u>Genetic Engineering News</u> .
Examiner		Date Considered

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>Form 1449 (Modified)</b>				Atty Docket No. KEENP001X1C1	Serial No.: NEW	
<b>Information Disclosure Statement By Applicant</b>				Applicant: Randy E. Keen		
(Use Several Sheets if Necessary)				Filing Date HEREWITH	Group	UNASSIGNED

### U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
	4A	4,721,601	01/26/88	Wrighton, et al.	422	68	11/23/84
	4B	4,717,673	01/05/88	Wrighton, et al.	436	68	11/19/85
	4C	4,711,245	12/08/87	Higgins, et al.	128	635	05/07/84
	4D	4,591,550	05/27/86	Hafeman, et al.	435	4	04/05/84
	4E	4,545,382	10/08/85	Higgins, et al.	128	635	10/22/82
	4F	4,502,938	03/05/85	Covington, et al.	204	412	04/08/82
	4G	4,442,185	04/10/84	Skotheim	429	111	06/09/82
	4H	4,416,959	11/22/83	Skotheim	429	111	10/19/81
	4I	4,354,308	10/19/82	Shimada, et al.	29	571	02/05/80
	4J	4,225,410	09/30/80	Pace	204	195	12/04/78
	4K	4,218,298	08/19/80	Shimada, et al.	204	195	11/03/78

### Foreign Patent or Published Foreign Patent Application

Examiner Initial	No.	Document No.	Publication Date	Country or Patent Office	Class	Sub-class	Translation	
							Yes	No
	4L							
	4M							
	4N							
	4O							
	4P							

### Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
	4R	Dagani, Ron, "Single molecular wire shown to be conductive," 3-15-96, <u>C&amp;EN</u> .
	4S	Gregg, BA: Heller, "A:Redox Polymer Films Containing Enzymes.1. A Redox-Conducting Epoxy Cement: Synthesis, Characterization, and Electrocatalytic Oxidation of Hydroquinone." <u>J Phys. Chem.</u> 95:5970-5975, 1991.
	4T	Hale, PD et al. "A New Class of Amperometric Biosensor Incorporating a Polymeric Electron-Transfer Mediator." <u>J. Am. Chem. Soc.</u> 111(9): 3482-3484, 1989.
Examiner		Date Considered

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>Form 1449 (Modified)</b>				Atty Docket No. KEENP001X1C1	Serial No.: NEW	
<b>Information Disclosure Statement By Applicant</b>				Applicant: Randy E. Keen		
(Use Several Sheets if Necessary)				Filing Date HEREWITH	Group	UNASSIGNED

#### U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
	5A	5,543,326	08/06/96	Heller, et al.	435	287.9	03/04/94
	5B	4,180,771	12/25/79	Guckel	324	71	12/02/77
	5C	4,562,157	12/31/85	Lowe, et al.	435	291	05/25/84
	5D	4,713,347	12/15/87	Mitchell, et al.	436	501	01/14/85
	5E	4,886,625	12/12/89	Albarella, et al.	252	500	10/29/87
	5F	4,916,075	04/10/90	Malmros, et al.	435	291	08/19/87
	5G	5,156,810	10/20/92	Ribi	422	82.01	06/15/89
	5H	5,202,261	04/13/93	Musho, et al.	435	288	11/18/91
	5I	5,320,725	06/14/94	Gregg, et al.	204	153.12	05/08/92
	5J	5,403,451	04/04/95	Riviello, et al.	204	153.1	03/04/94
	5K	5,422,246	06/06/95	Koopal, et al.	435	14	12/13/91

#### Foreign Patent or Published Foreign Patent Application

Examiner Initial	No.	Document No.	Publication Date	Country or Patent Office	Class	Sub-class	Translation	
							Yes	No
	5L							
	5M							
	5N							
	5O							
	5P							

#### Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
	5R	Cass, AEG, et al. "Ferrocene-Mediated Enzyme Electrode for Amperometric Determination of Glucose," <u>Anal. Chem.</u> 56:667-671, 1984.
	5S	Kober, EM, et al. "Synthetic Routes to New Polypyridyl Complexes of Osmium (II)," <u>Inorg. Chem.</u> 27: 4587-4598, 1988.
	5T	Boguslavsky, LI et al. "Novel Biosensors for Specific Neurotransmitters Based on Flavoenzymes and Flexible Redox Polymers," <u>Polym. Mater. Sci. Eng.</u> 64:322-323, 1991.
Examiner		Date Considered

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>Form 1449 (Modified)</b>				Atty Docket No. KEENP001X1C1	Serial No.: NEW	
<b>Information Disclosure Statement By Applicant</b>				Applicant: Randy E. Keen		
(Use Several Sheets if Necessary)				Filing Date HEREWITH	Group	UNASSIGNED

#### U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
	6A	5,491,097	02/13/96	Ribi, et al.	436	518	02/28/94
	6B	5,532,128	07/02/96	Eggers, et al.	435	16	12/12/94
	6C	5,556,524	09/17/96	Albers	204	296	02/16/95
	6D	5,556,752	09/17/96	Lockhart, et al.	435	6	10/24/94
	6E	5,561,071	10/01/96	Hollenberg, et al.	437	1	09/25/95
	6F	5,571,568	11/05/96	Ribi, et al.	427	487	06/07/95
	6G	5,622,872	04/22/97	Ribi	436	518	05/11/95
	6H	5,534,132	07/09/96	Vreeke, et al.	205	777.5	05/04/95
	6I	5,320,725	06/14/94	Gregg, et al.	204	153.12	05/08/92
	6J	5,591,578	01/07/97	Meade, et al.	435	6	12/10/93
	6K	5,593,852	1/14/97	Heller	435	14	09/01/94

#### Foreign Patent or Published Foreign Patent Application

Examiner Initial	No.	Document No.	Publication Date	Country or Patent Office	Class	Sub-class	Translation	
							Yes	No
	6L							
	6M							
	6N							
	6O							
	6P							

#### Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
	6R	Marcus, RA, et al. "Electron Transfers In Chemistry and Biology Biochim," <u>Biophys. Acta</u> 811:265-322, 1985.
	6S	Abstract. KAMR Proprietary. "Superconducting Quantum Wire Injection Device - A Novel Molecular Transistor," <u>US Patent Application</u> . KAMR Proprietary. 1-37. December 01, 1991.
	6T	Aizawa, M. et al., "Molecular Interfacing of Enzymes on the Electrode Surface," Chapter 26. In: Interfacial Design and Chemical Sensing. ACS Symposium Series 561. Mallouk, TE; Harrison, DJ ; eds. <u>American Chemical Society</u> , Washington, D. C.: 305-314, 1994.
Examiner		Date Considered

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>Form 1449 (Modified)</b>				Atty Docket No. KEENP001X1C1	Serial No.: NEW	
<b>Information Disclosure Statement By Applicant</b>				Applicant: Randy E. Keen		
(Use Several Sheets if Necessary)				Filing Date HEREWITH	Group	UNASSIGNED

#### U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
	7A	5,252,743	10/12/93	Barrett et al.	548	303.7	11/31/90
	7B	5,670,322	09/23/97	Eggers et al.	435	6	06/01/95
	7C						
	7D						
	7E						
	7F						
	7G						
	7H						
	7I						
	7J						
	7K						

#### Foreign Patent or Published Foreign Patent Application

Examiner Initial	No.	Document No.	Publication Date	Country or Patent Office	Class	Sub-class	Translation	
							Yes	No
	7L							
	7M							
	7N							
	7O							
	7P							

#### Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication		
	7R	Boehringer, et al., "Electron-Transport Rates in an Enzyme Electrode for Glucose," ACS Symposium Series, <u>American Chemical Society</u> , Washington, D.C., 1994, pp. 47-306.		
	7S	Collings, PJ: Chap. 9. "Polymer Liquid Crystals," In: Liquid Crystals: Nature's Delicate Phase of Matter. <u>Princeton University Press</u> ; Princeton, New Jersey, 162-180; 1990.		
	7T	Ladik, J; Biczo, G; Redly, J: "Possibility of Superconductive-Type Enhanced Conductivity in DNA at Room Temperature." <u>Phys. Rev.</u> 188(2):710-715, 1969.		
Examiner		Date Considered		

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>Form 1449 (Modified)</b>  <b>Information Disclosure Statement By Applicant</b>  (Use Several Sheets if Necessary)	Atty Docket No. KEENP001X1C1  Applicant: Randy E. Keen  Filing Date HEREWITH	Serial No.: NEW  Group UNASSIGNED
--	---	---

### Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
	8R	Ahmed, NAG; Calderwood, JH; Frohlich, H; Smith, CW: "Evidence For Collective Magnetic Effects In An Enzyme: Likelihood Of Room Temperature Superconductive Regions," <u>Phys. Lett.</u> 53A(2):129-130, 1975.
	8S	Little, WA: "Possibility of Synthesizing an Organic Superconductor," <u>Phys. Rev.</u> 134(6A):A1416-A1424, 1964. Little, WA: "Possibility of Synthesizing an Organic Superconductor," <u>Phys. Rev.</u> 134(6A):A1416-A1424, 1964.
	8T	Kulys, JJ, et al.: "Oxidation Of Glucose Oxidase From Penicillin Vitale By One- And Two-Electron Acceptors," <u>Biochim. Biophys. Acta</u> 744:57-63, 1983.
	9R	Ikeda, T; et al. M: "Glucose Oxidase-Immobilized Benzoquinone-Carbon Paste Electrode as a Glucose Sensor," <u>Agric. Biol. Chem.</u> 49(2):541-543, 1985.
	9S	Matthews, FS;,, et al.: "The Structure of Cytochrome b <sub>562</sub> from Escherichia coli at 2.5 Å Resolution," <u>J. Biol. Chem.</u> 254(5):1699-1706, 1979.
	9T	Weber, PC; et al.: "On the Evolutionary Relationship of the 4-_-Helical Heme Proteins," <u>J. Biol. Chem.</u> 256(15):7702-7704, 1981.
	10R	Lambrechts, M; Sansen, W: Chap. 4. "Planar Technologies For Microelectrochemical Sensors. In: Biosensors: Microelectrochemical Devices," <u>Institute of Physics Publishing</u> , Bristol, Philadelphia, New York; 1992; pp. 98-155.
	10S	Launay, JP: "Intermolecular Electron Transfer. Applications In Molecular Electronics. In: Mixed Valency Systems: Applications In Chemistry, Physics and Biology," Prassides, K; ed. <u>Kluwer Academic Publishers</u> ; Dordrecht, Boston, London; 1991; pp. 321-328.
	10T	Pethig, R: "Electronic Properties of Biological Materials," <u>John Wiley &amp; Sons</u> , Chichester and New York, 1979.
Examiner		Date Considered

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>Form 1449 (Modified)</b>  <b>Information Disclosure Statement By Applicant</b>  (Use Several Sheets if Necessary)		Atty Docket No. KEENP001X1C1	Serial No.: NEW
		Applicant: Randy E. Keen	
		Filing Date HEREWITH	Group UNASSIGNED

**Other Documents**

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
	11R	Carter, F., "Molecular Electronic Devices II," <u>Marcel Dekker, Inc.</u> , New York and Basel; 1987, pp. 39-53; 269-310, 573-590 and 723-739.
	11S	Stegemeyer, H; "Liquid Crystals," Steinkopff, Darmstadt and Springer, New York; 1994; Chapters 1-3.
	11T	Degani, Y; Heller A: "Direct Electrical Communication between Chemically Modified Enzymes and Metal Electrodes," 1. <u>Electron Transfer from Glucose</u> 20(1):78-81, 1979.
	12R	Miller, LL; Mann, KR: " $\pi$ - Dimers and $\pi$ -Stacks in Solution and in Conducting Polymers," <u>Acc. Chem. Res.</u> 29(9):417-423.
	12S	Herzfeld, J: "Entropically Driven Order in Crowded Solutions: From Liquid Crystals to Cell Biology," <u>Acc. Chem. Res.</u> , 1996, pages 31-37.
	12T	Stix, G: "Trends in Semiconductor Manufacturing: Toward Point One," <u>Scientific American</u> 272(2):90-95, 1995.
	13R	Arkin, MR; et al.: "Rates of DNA-Mediated Electron Transfer Between Metallointercalators," <u>Science</u> 273:475-480, 1996.
	13S	Meade, TJ and Kayyem, JF: "Electron Transfer Through DNA: Site-Specific Modification of Duplex DNA with Ruthenium Donors and Acceptors," <u>Angew. Chem. Int. Ed. Engl.</u> 34(3):352-354, 1995.
	13T	Sailor, MJ; Curtis, CL: "Conducting Polymer Connections for Molecular Devices," <u>Adv. Mater.</u> 6(9):688-692, 1994.
	14R	Kressin, AM; et al.: "Synthesis of Stoichiometric Cadmium Selenide Films via Sequential Monolayer Electrodeposition," <u>Chem. Mater.</u> 3(6):1015-1020, 1991.
	14S	Booy, FP; et al.: "Liquid-Crystalline, Phase-Like Packing Of Encapsulated DNA In Herpes Simplex Virus," <u>Cell</u> 64:1007-1015, 1991.
	14T	Flory, PJ: "Nematic Phase Equilibrium in Rigid Chain Polymers," <u>Polymer Preprints</u> 20(1):30, 1979
	15R	Iizuka, E: "Liquid Crystals of Macromolecules Including Living Systems: With Stress on Their Susceptibilities to Electromagnetic Fields," <u>Polymer Preprints</u> 20(1):78-81, 1979
	15S	Rill, RL: "Liquid Crystalline Phases in Concentrated Aqueous Solutions of $\text{Na}^+$ DNA," <u>Proc. Natl. Acad. Sci. USA</u> 83:342-346, 1986.
	15T	Brandes, R; Kearns, DR: "Magnetic Ordering of DNA Liquid Crystals," <u>Biochemistry</u> 25(20):5890-5895, 1986
Examiner		Date Considered

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>Form 1449 (Modified)</b> <b>Information Disclosure Statement By Applicant</b> (Use Several Sheets if Necessary)		Atty Docket No. KEENP001X1C1 Applicant: Randy E. Keen Filing Date HEREWITH	Serial No.: NEW Group UNASSIGNED
--	--	---	---

### Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
	16R	Alam, TM; Orban, J; Drobny, G: "A Solid-State Deuterium NMR Investigation of Conformation and Order in Magnetically Oriented $[d(CGCGAATTCGCG)]_2$ " <u>Biochemistry</u> 29(41):9610-9617, 1990.
	16S	Wang, J; Angnes, L: Miniaturized "Glucose Sensors Based on Electrochemical Codeposition Of Rhodium And Glucose Oxidase Onto Carbon-Fiber Electrodes," <u>Anal. Chem.</u> 64:456-459, 1992.
	16T	Lee, YC; Mendoza, BS: "Possible High- $T_c$ Superconductivity in Thin Wires." <u>Phys. Rev. B</u> 39(7):4776-4779, 1989.
	17R	Canright, GS; Vignale, G: "Superconductivity and Acoustic Plasmons in the Two-Dimensional Electron Gas," <u>Phys. Rev. B</u> 39(4):2740-2743, 1989.
	17S	Felts, AK; et al.: "Multilevel Redfield Treatment of Bridge-Mediated Long- Range Electron Transfer: A Mechanism for Anomalous Distance Dependence," <u>J. Phys. Chem.</u> 99:2929-2940, 1995.
	17T	Van Zandt, LL; Sazena, VK: "DNA Plasmons," <u>Phys. Rev. Lett.</u> 61(15):1788-1790, 1988.
	18R	Sokoloff, JB: "Comment on DNA Plasmon," <u>Phys. Rev. Lett.</u> 63(20):2316, 1989.
	18S	Povsic, TJ; et al.: "Triple Helix Formation By Oligonucleotides On DNA Extended To The Physiological pH Range," <u>J. Am. Chem. Soc.</u> 111(8):3059-3061, 1989.
	18T	Maeda, M; et al.: " $Mg^{2+}$ -Selective Electrode Comprising Double-Helical DNA as Receptive Entity," <u>Chem. Lett.</u> 1994:1805-1808, 1994.
	19R	Lvov, Y; Decher, G; Sukhorukov, G: "Assembly of Thin Films by Means of Successive Deposition of Alternate Layers of DNA and Poly(Allylamine)," <u>Macromolecules</u> 26:5396-5399, 1993.
	19S	Ijiro, K and Okahata, Y: "A DNA-Lipid Complex Soluble in Organic Solvents," <u>J. Chem. Soc., Chem. Commun.</u> 1992:1339, 1992
	19T	Tanatar, B: "Collective Modes in a Quasi-One Dimensional, Two-Component Electron Liquid," <u>Solid State Communications</u> 92(8):699-702, 1994.
	20R	Ruvalds, J: "Plasmons and High-Temperature Superconductivity in Alloys of Copper Oxides," <u>Phys. Rev. B</u> 35(16):8869-8872, 1987.

	20S	Bakhshi, AK: "Investigation of Electronic Conduction in Proteins and DNA" <u>Prog. Biophys. Molec. Biol.</u> 61:187-253, 1994.
	20T	Bardeen, J; Brattain, WH: "The Transistor, A Semi-Conductor Triode." <u>Phys. Rev.</u> 74:230-231, 1948.

Examiner	Date Considered
----------	-----------------

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>Form 1449 (Modified)</b>  <b>Information Disclosure Statement By Applicant</b>  (Use Several Sheets if Necessary)	Atty Docket No. KEENP001X1C1  Applicant: Randy E. Keen  Filing Date HEREWITH	Serial No.: NEW  Group UNASSIGNED
--	---	---

### Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
	21R	Fou, AC, et al.: "Molecular-Level Control in the Deposition of Ultrathin Films of Highly Conductive, In-Situ Polymerized P-Doped Conjugated Polymers," <u>Mater. Res. Soc. Symp. Proc.</u> 328:113-118, 1994.
	21S	Swager, TM; Marsella, MJ: "Conducting Polymers With Chemically Sensitive Traps and Barriers: New Molecule-Based Sensors," <u>Mat. Res. Soc. Symp. Proc.</u> 328:263-266, 1994.
	21T	Ikariyama, Y; et al.: "Electrochemical Fabrication of Amperometric Microenzyme Sensor," <u>J. Electrochem. Soc.</u> 136(3):702-702, 1989.
	22R	Kent, SL; et al.: "Morphology, Chain Folding and C-LC Transitions in Liquid Crystal Polymer Single Crystals. In: Crystallization of Polymers," Dosiere, M; ed. <u>Kluwer Academic Publishers</u> ; Dordrecht, Boston, London; 1993; pp. 177-188.
	22S	Albrecht, C; et al.: "The Crystallization Behavior of Rod-Like Macromolecules In: Crystallization of Polymers," Dosiere, M; ed. <u>Kluwer Academic Publishers</u> ; Dordrecht, Boston, London; 1993; pp. 323-330.
	22T	Freidzon, YS; Shibaev, VP: Chap. 7. "Liquid-Crystal Polymers," Plate, NA; ed. <u>Plenum Press</u> ; New York, London; 1993; pp. 251-302.
	23R	Moller, HJ: "Semiconductors For Solar Cells," <u>Artech House, Inc.</u> ; Boston, London; 1993.
	23S	Green, MA: "Solar Cells. Operating Principles, Technology, and System Applications," <u>Prentice-Hall, Inc.</u> ; Englewood Cliffs, New Jersey; 1982
	23T	Fonash, SJ: "Solar Cell Device Physics," <u>Academic Press</u> ; New York, London, Toronto, Sydney, San Francisco; 1981
	24R	Bardeen, J; Cooper, LN; Schrieffer, JR: "Microscopic Theory of Superconductivity," <u>Phys. Rev.</u> 106:162-164, 1957.
	24S	Reed, MA; Seabaugh, AC: Chap. 2. "Molecular and Biomolecular Electronids," Birge, RR; ed. <u>American Chemical Society</u> ; Washington, D.C.; 1994; pp. 14-42.

	24T	Johnson, KW: "Reproducible Electrodeposition of Biomolecules for the Fabrication of Miniature Electroenzymatic Biosensors," <u>Sensors and Actuators B</u> 5:85-89, 1991.
Examiner		Date Considered

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>Form 1449 (Modified)</b>  <b>Information Disclosure Statement By Applicant</b>  (Use Several Sheets if Necessary)		Atty Docket No. KEENP001X1C1	Serial No.: NEW
		Applicant: Randy E. Keen	
		Filing Date HEREWITH	Group UNASSIGNED

### Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
	25R	Degani, Y and Heller, H.; "Direct Electrical Communication between Chemically Modified Enzymes and Metal Electrodes. 2. Methods for Bonding Electron-Transfer Relays to Glucose Oxidase and D-Amino-Acid Oxidase," <u>J. Am. Chem. Soc.</u> 1988, 110, 2615-2620.
	25S	Meade, TJ: "Metal Ions in Biological Systems," Sigel, A; Sigel, H; eds. <u>Marcel Dekker, Inc.</u> ; New York, Basel, Hong Kong; 1996; pp. 453-478.
	25T	Murphy, CJ; Arkin, MR; Jenkins, Y; Ghatlia, ND; Bossmann, SH; Turro, NJ; Barton, JK: "Long-Range Photoinduced Electron Transfer Through a DNA Helix," <u>Science</u> 262:1025-1029, 1993.
	26R	Ijiro, K and Shimomura, M: "Quantization of Double Helix DNA as Functional High Molecules," <u>Kotai Butsuri</u> 30(12):1042-1048, 1995. + Translation.
	26S	Stemp, EDA; Barton, JK: Chap. 11. "Electron Transfer Between Metal Complexes Bound To DNA: Is DNA A Wire? In: Metal Ions In Biological Systems," Vol. 33. <u>Probing of Nucleic Acids by Metal Ion Complexes of Small Molecules</u> Sigel, A; Sigel, H; eds. <u>Marcel Dekker, Inc.</u> ; New York, Basel, Hong Kong; 1996; pp. 325-365.
	26T	Gregory, BW; Stickney, JL: "Electrochemical Atomic Layer Epitaxy (ECALE)," <u>J.5, Electroanal. Chem.</u> 300:543-561, 1991.
	27R	Gregory, BW, et al.: "Conditions for the Deposition of CdTe by Electrochemical Atomic Layer Epitaxy," <u>J. Electrochem. Soc.</u> 138(5):1279-1284, 1991.
	27S	Villegas, I; Stickney, JL: "Preliminary Studies of GaAs Deposition on Au(100), (110), and (111) Surfaces by Electrochemical Atomic Layer Epitaxy," <u>J. Electrochem. Soc.</u> 139(3):686-694, 1992.
	27T	Suggs, DW; et al.: "Formation of Compound Semiconductors by Electrochemical Atomic Layer Epitaxy," <u>J. Vac. Sci. Technol A</u> 10(4):886-891, 1992.
Examiner		Date Considered

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>Form 1449 (Modified)</b>  <b>Information Disclosure Statement By Applicant</b>  (Use Several Sheets if Necessary)		Atty Docket No. KEENP001X1C1	Serial No.: NEW
		Applicant: Randy E. Keen	
		Filing Date HEREWITH	Group UNASSIGNED

### Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
	28R	Huang, BM; Colletti, LP; Gregory, BW; Anderson, JL; Stickney, JL: "Preliminary Studies of the Use of an Automated Flow-Cell Electrodeposition System for the Formation of CdTe Thin Films by Electrochemical Atomic Layer Epitaxy," <u>J. Electrochem. Soc.</u> 142(9):3007-3016, 1995.
	28S	Paul, EW; Ricco, AJ; Wrighton, MS: "Resistance of Polyaniline Films as a Function of Electrochemical Potential and the Fabrication of Polyaniline-Based Microelectronic Devices," <u>J. Phys. Chem.</u> 89:1441-1447, 1985.
	28T	White, HS; Kittlesen, GP; Wrighton, MS: "Chemical Derivatization of an Array of Three Gold Micorelectrodes with Polypyrrole: Fabrication of a Molecule- Based Transistor," <u>J. Am. Chem. Soc.</u> 106:5375-5377, 1984.
	29R	Kittlesen, GP; et al.: "Chemical Derivatization of Microelectrode Arrays by Oxidation of Pyrrole and N-Methylpyrrole: Fabrication of Molecule-Based Electronic Devices," <u>J. Am. Chem. Soc.</u> 106:7389-7396, 1984.
	29S	Strike, DJ; et al.: "Electrodeposition of Glucose Oxidase for the Fabrication Of Miniature Sensors," <u>Sensors and Actuators</u> B13-14:61-64, 1993.
	29T	Brown, GH; Wolken, JJ: Chap. 5. "Liquid Crystals and Biological Structures," <u>Academic Press</u> ; 1979; pp. 56-72. <u>Sci. USA</u> 83:4581-4584, 1986.
	30R	Janata, J: "Chemical Sensors" <u>Anal. Chem.</u> 64(12):196R-219R, 1992.
	30S	Szent-Gyorgyi, A: "Internal Photo-Electric Effect and Band Spectra in Proteins," <u>Nature</u> 157:875, 1946. Szent-Gyorgyi, A: "Towards a New Biochemistry?" <u>Science</u> 93:609-611, 1941.
	30T	Szent-Gyorgyi, A: "Towards a New Biochemistry?" <u>Nature</u> 157:875, 1946. <u>Science</u> 93:609-611, 1941.
	31R	Baum, RM: "Views On Biological, Long-Range Electron Transfer Stir Debate," <u>Chemical and Engineering News</u> 71(8):20-23, 1993.
	31S	Collman, JP; et al.: "Conductive Polymers Derived From Iron, Ruthenium, And Osmium Metalloporphyrins: The Shish-Kebab Approach," <u>Proc. Natl. Acad. Sci. USA</u> 83:4581-4584, 1986.

	31T	Kanatzidis, MG: "Conductive Polymers," <u>Chemical and Engineering News</u> 68(49):36-54, 1990.
Examiner		Date Considered

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>Form 1449 (Modified)</b>  <b>Information Disclosure Statement By Applicant</b>  (Use Several Sheets if Necessary)		Atty Docket No. KEENP001X1C1	Serial No.: NEW
		Applicant: Randy E. Keen	
		Filing Date HEREWITH	Group UNASSIGNED

### Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
	32R	Adam, D; et al.: "Fast Photoconduction in the Highly Ordered Columnar Phase of a Discotic Liquid Crystal," <u>Nature</u> 371:141-143, 1994.
	32S	Wilson, E. K.: "DNA: Insulator or Wire?: Flurry of new research, heated debate focuses on biomolecule," <u>C&amp;EN</u> February 24, 1997. 33-39.
	32T	Keesey, J. editor and compiler: "Biochemical Information- 1st Ed. Ch. 1: Enzymes for Routine Quantitative Analysis," <u>Boehringer Mannheim</u> , 1997, pp. i- 85.
	33R	Pritchard, D., et al. "Micron-Scale Patterning of Biological Molecules," <u>Angew. Chem. Int. Ed. Engl.</u> 1995, 34, No. 1.
	33S	Yoo, M.J. et al; "Scanning Single-Electron Transistor Microscopy: Imaging Individual Charges," <u>Science</u> , Vol. 276, 25 April 1997.
	33T	Service, R.; Meeting Briefs; "Atomic Landscapes Beckon Chip Makers and Chemists," <u>Science</u> , Vol. 274, 1 November 1996.
	34R	"Science/Technology Concentrates," September 12, 1994 <u>C&amp;EN</u> , page 19.
	34S	Caras, et al., "Field Effect Transistor Sensitive to Penicillin," 1980, <u>American Chemical Society</u> , pages, 1935-1937.
	34T	
Examiner		Date Considered

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>Form 1449 (Modified)</b>			
<b>Information Disclosure Statement By Applicant</b>		Atty Docket No. KEENP001X1C1	Serial No.: NEW
(Use Several Sheets if Necessary)		Applicant: Randy E. Keen Filing Date HEREWITH	Group UNASSIGNED

**U.S. Patent Documents**

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
	35A	5,837,859	11/17/98	Teoule et al.			
	35B	6,197,949	03/06/01	Teoule et al.			
	35C	5,922,183	07/13/99	Rauh			
	35D	6,180,352	01/30/01	Meade et al.			
	35E	6,177,250	01/23/01	Meade et al.			
	35F	5,466,589	11/14/95	Olinger et al.			
	35G	4,655,885	04/07/87	Hill et al.			
	35H	5,705,348	01/06/98	Meade et al.			
	35I	5,770,369	06/23/98	Meade et al.			
	35J	5,780,234	07/14/98	Meade et al.			
	35K	5,824,473	10/20/98	Meade et al.			
	35L	5,952,172	09/14/99	Meade et al.			
	35M	6,013,170	01/11/00	Meade			
	35N	6,013,459	01/11/00	Meade			
	35O	6,071,699	06/06/00	Meade et al.			
	35P	6,087,100	07/11/00	Meade et al.			
	35Q	6,090,933	07/18/00	Kayyem et al.			
	35R	6,096,273	08/01/00	Kayyem et al.			
	35S	6,060,023	05/09/00	Maracas			
	35T	5,264,104	11/23/93	Gregg et al.			
	35U	5,264,105	11/23/93	Gregg et al.			
	35V	5,665,222	09/09/97	Heller et al.			
	35W	5,972,199	10/26/99	Heller et al.			
	35X	5,411,647	05/02/95	Johnson et al.			
	35Y	5,089,112	02/18/92	Skotheim et al.			
	35Z	5,264,092	11/23/93	Skotheim et al.			
	36A	5,874,046	02/23/99	Megerle			
	36B	6,117,973	09/12/00	Batz et al.			
	36C	Re. 35,317	08/27/96	Lindsay			
	36D	6,134,461	11/17/00	Say et al.			
	36E	6,200,761	03/13/01	Meade et al.			

<b>Form 1449 (Modified)</b> <b>Information Disclosure Statement By Applicant</b> (Use Several Sheets if Necessary)				Atty Docket No. KEENP001X1C1	Serial No.: NEW
				Applicant: Randy E. Keen	Group UNASSIGNED
				Filing Date HEREWITH	

**Foreign Patent or Published Foreign Patent Application**

Examiner Initial	No.	Document No.	Publication Date	Country or Patent Office	Class	Sub-class	Translation	
							Yes	No
	37A	WO 94/22889	10/13/94	WIPO				

**Other Documents**

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
	38A	Arthur J. Frank et al., <i>Reversible Associative and Dissociative Interactions of Glucose Oxidase with Nitrospiropyran Monolayers Assembled onto Gold Electrodes: Amperometric Transduction of Recorded Optical Signals</i> , Langmuir; 1996; 12(4); 946-954.
	38B	Ravi Rajagopalan et al., <i>Effect of Quaternization of the Glucose Oxidase "Wiring" Redox Polymer on the Maximum Current Densities of Glucose Electrodes</i> , The Journal of Physical Chemistry; 100(9); 3719-3727.
	38C	Ron Blonder et al., <i>Application of a Nitrospiropyran-FAD-Reconstituted Glucose Oxidase and Charged Electron Mediators as Optobioelectronic Assemblies for the Amperometric Transduction of Recorded Optical Signals: Control of the "On"- "Off" Direction of the Photoswitch</i> , Journal of the American Chemical Society; 1997; 119(49); 11747-11757.
	38D	Pedro Alzari et al., <i>Molecular Recognition of Artificial Single-Electron Acceptor Cosubstrates by Glucose Oxidase?</i> , Journal of the American Chemical Society; 1996; 118(28); 6788-6789.
	38E	Zhanen Zhang et al., <i>A Glucose Biosensor Based on Immobilization of Glucose Oxidase in Electropolymerized o-Aminophenol Film on Platinized Glassy Carbon Electrode</i> , Analytical Chemistry; 1996; 68(9); 1632-1638.
	38F	Guoqiong Du et al., <i>Electroanalytical Detection of Glucose Using a Cyanometalate-Modified Electrode: Requirements for the Oxidation of Buried Redox Sites in Glucose Oxidase</i> , Analytical Chemistry; 1996; 68(5); 796-806
	38G	Amos Bardea, et al., <i>NAD<sup>+</sup>-Dependent Enzyme Electrodes: Electrical Contact of Cofactor-Dependent Enzymes and Electrodes</i> , Journal of the American Chemical Society; 1997; 119(39); 9114-9119.

<b>Form 1449 (Modified)</b> <b>Information Disclosure Statement By Applicant</b> (Use Several Sheets if Necessary)		<b>Atty Docket No.</b> <b>KEENP001X1C1</b> <b>Applicant:</b> <b>Randy E. Keen</b> <b>Filing Date</b> <b>HEREWITH</b>	<b>Serial No.:</b> <b>NEW</b> <b>Group</b> <b>UNASSIGNED</b>
--	--	---	---

39H	Wolfgang Wernet, <i>Design of Enzyme Electrodes for Extended Use and Storage Life</i> , Analytical Chemistry; 1997; 69(14); 2682-2687.
39I	C. Danilowicz and L. Diaz, <i>Electrical Communication between Electrodes and Enzymes Mediated by Redox Hydrogels</i> , Analytical Chemistry; 1996; 68(23); 4186-4193.
39J	Yoshio Okahata, et al., <i>Orientation of DNA Double Strands in a Langmuir-Blodgett Film</i> , Langmuir; 1996; 12(5); 1326-1330.
39K	Alaa-Eldin F. Nassar et al., <i>Electron Transfer between Electrodes and Heme Proteins in Protein-DNA Films</i> , Journal of the American Chemical Society; 1996; 118(12); 3043-3044.
39L	Joseph Wang et al., <i>Peptide Nucleic Acid Probes for Sequence-Specific DNA Biosensors</i> , Journal of the American Chemical Society; 1996; 118(33); 7667-7670.
39M	P. N. Bartlett et al., <i>Modification of Glucose Oxidase by the Covalent Attachment of a Tetrathiafulvalene Derivative</i> , Analytical Chemistry; 1997; 69(4); 734-742.
39N	Sayed A. M. Marzouk et al., <i>A Conducting Salt-Based Amperometric Biosensor for Measurement of Extracellular Lactate Accumulation in Ischemic Myocardium</i> , Analytical Chemistry; 1997; 69(14); 2646-2652.
39O	Serge Cosnier, et al., <i>An Electrochemical Method for Making Enzyme Microsensors. Application to the Detection of Dopamine and Glutamate</i> , Analytical Chemistry; 1997; 69(5); 968-971.
39P	Won Jun Sung and You Han Bae, <i>A Glucose Oxidase Electrode Based on Electropolymerized Conducting Polymer with Polyanion-Enzyme Conjugated Dopant</i> , Analytical Chemistry; 2000; 72(9); 2177-2181.
39Q	T. de Lumley-Woodyear, C. N. Campbell, and A. Heller, <i>Direct Enzyme-Amplified Electrical Recognition of a 30-Base Model Oligonucleotide</i> , Journal of the American Chemical Society; 1996; 118(23); 5504-5505.
39R	Itamar Willner et al., <i>Electrical Wiring of Glucose Oxidase by Reconstitution of FAD-Modified Monolayers Assembled onto Au-Electrodes</i> , Journal of the American Chemical Society; 1996; 118(42); 10321-10322.
39S	Gregg Kenausis et al., <i>Electrochemical Glucose and Lactate Sensors Based on "Wired" Thermostable Soybean Peroxidase Operating Continuously and Stably at 37 °C</i> , Analytical Chemistry; 1997; 69(6); 1054-1060.

<b>Form 1449 (Modified)</b> <b>Information Disclosure Statement By Applicant</b> (Use Several Sheets if Necessary)		<b>Atty Docket No.</b> <b>KEENP001X1C1</b> <b>Applicant:</b> <b>Randy E. Keen</b> <b>Filing Date</b> <b>HEREWITH</b>	<b>Serial No.:</b> <b>NEW</b> <b>Group</b> <b>UNASSIGNED</b>
--	--	---	---

39T	Yuri M. Lvov, et al., <i>Direct Electrochemistry of Myoglobin and Cytochrome P450cam in Alternate Layer-by-Layer Films with DNA and Other Polyions</i> , Journal of the American Chemical Society; 1998; 120(17); 4073-4080.
39U	James F. Rusling, <i>Enzyme Bioelectrochemistry in Cast Biomembrane-Like Films</i> , Accounts of Chemical Research; 1998; 31(6); 363-369.
39V	Achim Stocker and Andreas F. Bückmann, <i>Reconstitution of Apo-Glucose Oxidase with a Nitrospiropyran-Modified FAD Cofactor Yields a Photoswitchable Biocatalyst for Amperometric Transduction of Recorded Optical Signals</i> , Journal of the American Chemical Society; 1996; 118(22); 5310-5311.
39W	Itamar Willner, <i>Photoswitchable Biomaterials: En Route to Optobioelectronic Systems</i> , Accounts of Chemical Research; 1997; 30(9); 347-356.
39X	Golam Faruque Khan et al., <i>Design of a Stable Charge Transfer Complex Electrode for a Third-Generation Amperometric Glucose Sensor</i> , Analytical Chemistry; 1996; 68(17); 2939-2945.
39Y	Philip N. Bartlett, <i>Layer-by-Layer Self-Assembly of Glucose Oxidase with a Poly(allylamine)ferrocene Redox Mediator</i> , Langmuir; 1997; 13(10); 2708-2716
39Z	Joseph Wang and Prasad V. A. Pamidi, <i>Sol-Gel-Derived Gold Composite Electrodes</i> , Analytical Chemistry; 1997; 69(21); 4490-4494.
40A	Y. Okahata, et al., <i>DNA-Aligned Cast Film and its Anisotropic Electron Conductivity</i> , Supramolecular Science; 1998; 5(3-4); 317-320.
40B	Yoshio Okahata et al., <i>Oriented Thin Films of a DNA-Lipid Complex</i> , Thin Solid Films; 1996; 284-285; 6-8.
40C	Masatsugu Shimomura et al., <i>Construction of Oriented p-Electron Arrays Based on Two-Dimensional Supramolecular Organizates</i> , Supramolecular Science; 1996; 3(1-3); 61-65.
40D	T. Livache, et al., <i>Biosensing Effects in Functionalized Electroconducting Conjugated Polymer Layers: Addressable DNA Matrix for the Detection of Gene Mutations</i> , Synthetic Metals; 1995; 71(1-3); 2143-2146.
40E	A. Guerrieri et al., <i>Electrosynthesized Non-Conducting Polymers as Permselective Membranes in Amperometric Enzyme Electrodes: A Glucose Biosensor Based On a Co-Crosslinked Glucose Oxidase/Overoxidized Polypyrrole Bilayer</i> , Biosensors & Bioelectronics; 1998; 13(1); 103-112.

<b>Form 1449 (Modified)</b>  <b>Information Disclosure Statement By Applicant</b>  (Use Several Sheets if Necessary)		Atty Docket No. KEENP001X1C1  Applicant: Randy E. Keen  Filing Date HEREWITH	Serial No.: NEW  Group UNASSIGNED
--	--	---	---

	40F	M. Trojanowicz, et al., <i>Biosensors Based on Oxidases Immobilized in Various Conducting Polymers</i> , Sensors and Actuators B: Chemical; 1995; 28(3); 191-199.	
	40G	Tetsuya Haruyama et al., <i>Electron Transfer Between an Electrochemically Deposited Glucose Oxidase/Cu[II] Complex and an Electrode</i> , Biosensors & Bioelectronics; 1998; 13(9); 1015-1022.	
	40H	Itamar Willner et al., <i>Photoswitchable Biomaterials as Grounds for Optobioelectronic Devices</i> , Biochemistry and Bioenergetics; 1997; 42(1); 43-57	
	40I	P. J. H. J. van Os et al., <i>Glucose Detection at Bare and Sputtered Platinum Electrodes Coated With Polypyrrole and Glucose Oxidase</i> , Analytica Chimica Acta; 1996; 335(3); 209-216.	
	40J	Shaik M. Zakeeruddin et al., <i>Glucose Oxidase Mediation by Soluble and Immobilized Electroactive Detergents</i> , Biosensors & Bioelectronics; 1996; 11(3); 305-315.	
	40K	Sergey D. Varfolomeev et al., <i>Direct Electron Transfer Effect Biosensors</i> , Biosensors & Bioelectronics; 1996; 11(9); 863-871.	
	40L	M. Alvarez-Icaza et al., <i>The Design of Enzyme Sensors Based on the Enzyme Structure</i> , Biosensors & Bioelectronics; 1995; 10(8); 735-742.	
	40M	C. Danilowicz et al., <i>An Os(byp)2ClPyCH2NH Poly(allylamine) Hydrogel Mediator for Enzyme Wiring at Electrodes</i> , Electrochimica Acta; 1998; 43(23); 3525-3531.	
	40N	Willem M. Albers et al., <i>Design of Novel Molecular Wires for Realizing Long-Distance Electron Transfer</i> , Bioelectrochemistry and Bioenergetics; 1997; 42(1); 25-33.	
	40O	Eugenii Katz, et al., <i>Electrical Contact of Redox Enzymes with Electrodes: Novel Approaches for Amperometric Biosensors</i> , Bioelectrochemistry and Bioenergetics; 1997; 42(1); 95-104.	
	40P	Wolfgang Schuhmann, <i>Electron-Transfer Pathways in Amperometric Biosensors. Ferrocene-Modified Enzymes Entrapped in Conducting-Polymer Layers</i> , Biosensors & Bioelectronics; 1995; 10(1-2); 181-193.	
	40Q	K. Warriner et al., <i>Stability of Dodecyl Sulphate-Doped Poly(pyrrole)/Glucose Oxidase Modified Electrodes Exposed in Human Blood Serum</i> , Materials Science and Engineering: C; 1997; 5(2); 81-90.	

<b>Form 1449 (Modified)</b> <b>Information Disclosure Statement By Applicant</b> (Use Several Sheets if Necessary)	Atty Docket No. <b>KEENP001X1C1</b> Applicant: <b>Randy E. Keen</b> Filing Date <b>HEREWITH</b>	Serial No.: <b>NEW</b> Group <b>UNASSIGNED</b>
--	--	---

40R	J. Li et al., <i>Mediated Amperometric Glucose Sensor Modified by the Sol-Gel Method</i> , Sensors and Actuators B: Chemical; 1997; 40(2-3); 135-141.	
40S	Golam Faruque Khan, <i>Construction of SEC/CTC Electrodes for Direct Electron Transferring Biosensors</i> , Sensors and Actuators B: Chemical; 1996; 36(1-3); 484-490.	
40T	Shaolin Mu et al., <i>Bioelectrochemical Characteristics of Glucose Oxidase Immobilized in a Polyaniline Film</i> , Sensors and Actuators B: Chemical; 1996; 31(3); 155-160.	
40U	Joong-Hoon Cho et al., <i>Electrochemical Adsorption of Glucose Oxidase Onto Polypyrrole Film for the Construction of a Glucose Biosensor</i> , Sensors and Actuators B: Chemical; 1996; 30(2); 137-141.	
40V	Min-Choi Shin et al., <i>Electrochemical Characterization of Polypyrrole/Glucose Oxidase Biosensor: Part I. Influence of Enzyme Concentration on the Growth and Properties of the Film</i> , Biosensors & Bioelectronics; 1996; 11(1-2); 161-169.	
40W	Min-Choi Shi, et al., <i>Electrochemical Characterization of Polypyrrole/Glucose Oxidase Biosensor: Part II. Optimal Preparation Conditions for the Biosensor</i> , Biosensors & Bioelectronics; 1996; 11(1-2); 171-178.	
40X	K. Warriner et al., <i>Electrochemical Characteristics of Two Model Electropolymerised Films for Enzyme Electrodes</i> , Biosensors & Bioelectronics; 1996; 11(6-7); 615-623.	
40Y	G.E. De Benedetto et al., <i>One-Step Fabrication of a Bienzyme Glucose Sensor Based on Glucose Oxidase and Peroxidase Immobilized Onto a Poly(pyrrole) Modified Glassy Carbon Electrode</i> , Biosensors & Bioelectronics; 1996; 11(10); 1001-1008.	
40Z	Kumaran Ramanathan et al., <i>Application of Polyaniline-Langmuir-Blodgett Films as a Glucose Biosensor</i> , Materials Science and Engineering: C; 1995; 3(3-4); 159-163.	
41A	L. Coche-Guriente, et al., <i>Development of Amperometric Biosensors Based on the Immobilization of Enzymes in Polymer Films Electrogenerated From a Series of Amphiphilic Pyrrole Derivatives</i> , Analytica Chimica Acta; 1995; 311(1); 23-30.	

<b>Form 1449 (Modified)</b> <b>Information Disclosure Statement By Applicant</b> (Use Several Sheets if Necessary)		Atty Docket No. KEENP001X1C1 Applicant: Randy E. Keen Filing Date HEREWITH	Serial No.: NEW Group UNASSIGNED
--	--	---	---

	41B	<i>Qijin Chi, et al., Amperometric Biosensors Based on the Immobilization of Oxidases in a Prussian Blue Film by Electrochemical Codeposition, Analytica Chimica Acta; 1995; 310(3); 429-436.</i>	
	41C	<i>Jingdong Zhang et al., A Comparative Study on STM Imaging and Electrocatalytic Activity of Different Surfaces Modified with Flavin Adenine Dinucleotide, Electrochimica Acta; 1995; 40(6); 733-744.</i>	
	41D	<i>Miloslav Pravda et al., Evaluation of Amperometric Glucose Biosensors Based on Co-Immobilisation of Glucose Oxidase with an Osmium Redox Polymer in Electrochemically Generated Polyphenol Films, Analytica Chimica Acta; 1995; 304(2); 127-138.</i>	
	41E	<i>Carl A. Koval et al., Electron Transfer at Semiconductor Electrode-Liquid Electrolyte Interfaces, Chemical Reviews; 1992; 92(3); 411-433. (Review)</i>	
Examiner		Date Considered	

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.